NEUROIMAGES

Contrast enhancement of hypertrophic dura mater in MOG antibody-associated disease

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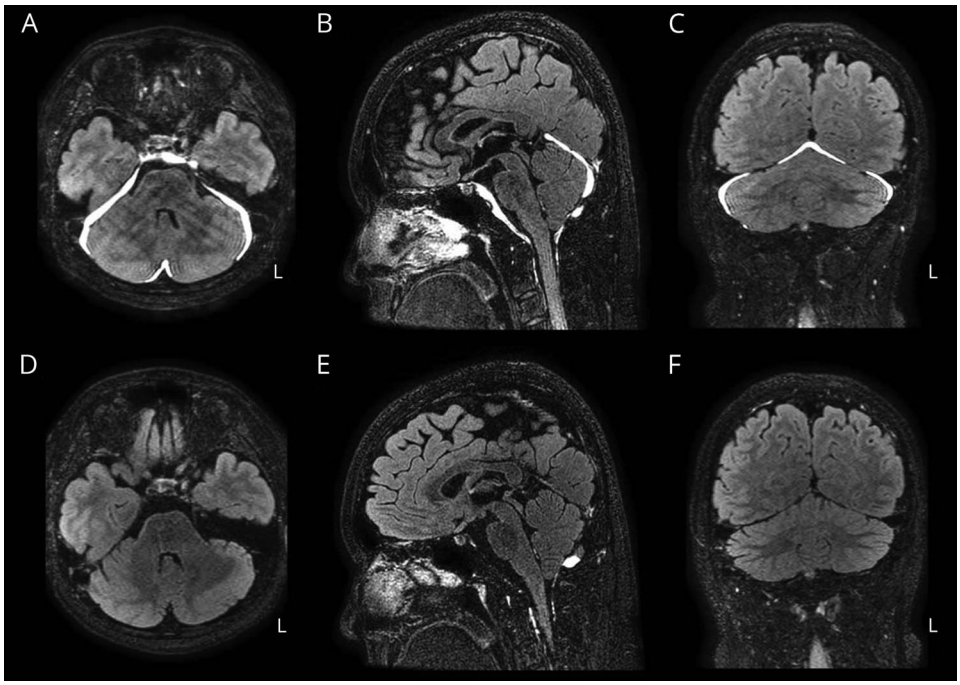
A 16-year-old boy with a history of optic neuritis and brainstem lesions due to myelin oligodendrocyte glycoprotein (MOG) antibody-associated disease complained of visual disturbance. He had no headache or other neurologic symptoms. Brain MRI showed contrast enhancement of hypertrophic dura mater in the posterior fossa (figure), but no abnormal dura elsewhere. Increasing prednisolone and adding tacrolimus following steroid pulse therapy improved the abnormality (figure). The clinical phenotype of MOG antibody-associated disease includes optic neuritis, myelitis, acute or multiphasic disseminated encephalomyelitis, and encephalitis.[1] Although oligodendrocytes are not normally present in the dura matter, heterotopic neuroglial tissues were reported.[2] The interactions of MOG antibody with heterotopic neuroglial tissue in the dura mater may contribute to the pathophysiology in this case.

Figure Post contrast-enhanced 3D fluid-attenuated inversion recovery images



(A–C) Contrast enhancement of the hypertrophic dura mater at the time of the episode. (D–F) Disappearance of the abnormality after immunosuppressive therapies.

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